ELSEVIER

Journal of Materials Processing Technology 127 (2002) 419–420

Journal of Materials Processing Technology

www.elsevier.com/locate/jmatprotec

Author Index of Volume 127

Akbari, A.A., 274
Ali, M.Y., 256
Antonsson, T., 159
Apte, P., 206
Argyropoulou, R., 122
Aspinwall, D., 211
Aspinwall, D.K., 222, 266
Axinte, D.A., 325

Bagavathiperumal, P., 64
Bai, C.Y., 187
Bandyopadhyay, S., 83
Béjar, M.A., 68
Blunt, L.A., 234
Butler, D.L., 234

Çetin, M.C., 392
Chang, A.K., 199
Chao, C.L., 182, 187
Chen, C.-C.A., 146
Chen, T., 369
Chen, X.Q., 140
Chen, Y.T., 182
Choi, H.-S., 280
Choi, H.Z., 155
Choi, J.-U., 73
Choudhury, I.A., 17

Dcosta, D.J., 343, 352
Demeri, M.Y., 361
Dewes, R.C., 266, 325
Dornfeld, D.A., 199

El-Raghy, T., 352
El-Menshawy, F., 211
El-Raghy, T., 343
Ewald, H., 23

Fu, Y.Q., 256
Fukaya, Y., 251

Gao, X.-L., 309
Gethin, D.T., 96
Ghani, A.K., 17
Gong, H.Q., 230
Gong, Z.M., 140

Han, H., 129
Han, Z.-W., 382
Hashimoto, Y., 169
Hazra, L., 169
Higuchi, S., 274
Hong, G.D., 230
Hongzhi, D., 261
Hsu, C.-W., 361
Hu, B.H., 238
Hu, W., 374
Huang, H., 140
Hung, N.P., 256
Husni, 17

Ikuta, A., 251
Im, Y.-T., 57
Ishikawa, T., 73

Jarfors, A.E.W., 131, 159
Jeong, H.D., 155
Joshi, S.V., 83
Juang, Y.-S., 146

Kato, H., 169, 217
Keife, H., 159
Khoei, A.R., 96
Khor, K.A., 165
Kim, C., 409
Kim, S.-Y., 57
Kiryu, T., 169
Kokkinos, E., 122
Koshy, P., 266
Kotaka, H., 174
Kotnis, M.A., 242
Krallics, G., 388
Kulaksız, S., 392
Kuroda, T., 169
Kuroki, H., 251
Kusiak, J., 115
Kuziak, R., 115

Lanz, R.W., 242
Lee, J.-H., 73
Lee, S., 286
Lee, S.-K., 280
Lee, S.W., 155
Lee, Y., 199
Lee, Y.-S., 73
Leskovšek, V., 298
Lewis, E., 23
Li, K., 309
Lin, B.L., 230
Lin, F., 343, 352
Lin, T.-R., 1, 8
Lin, W.-Z., 146
Liščić, B., 298
Liu, C., 382
Liu, D.S., 182, 187
Liu, M., 107
Liu, Z.Y., 165
Loh, N.H., 165
Lu, W.-P., 382
Lyons, W.B., 23

Ma, K.J., 182, 187
MacCormack, C., 48
Maeda, R., 165
Mansour, S., 31
Markovits, T., 388
Masters, I., 96
Masuda, H., 251
Meadows, K., 211
Melkote, S.N., 242
Miyoshi, T., 286
Monaghan, J., 48
Murakoshi, Y., 165

Nabhani, F., 40
Narutaki, N., 246
Natarajan, S., 64
Ng, E.-G., 222
Niu, X.P., 238

Ochsenkühn, K.M., 122
Ochsenkühn-Petropoulou, M., 122
Özçelik, Y., 392

Parissakis, G., 122
Persson, P., 131
Pinwill, I., 238

Ramesh, K., 191
Ren, L.-Q., 382
Ridong, J., 261
Rizvi, N.H., 206

Sakamoto, Y., 151
Sakuma, I., 169
Sakurai, M., 178
Sarin Sundar, J.K., 83
Savage, S., 131
Schnake, W., 68
See, B.K., 234
Sekiya, K., 246
Seo, J.-R., 280
Shieh, M.B., 182
Shimizu, T., 165
Shinozaki, K., 251
Shintani, K., 217
Shy, T.L., 187
Simão, J., 211
Stout, K.J., 234
Sumiya, H., 217

Elsevier Science B.V.
PII: S0924-0136(02)00775-6

Sun, W., 343, 352
Sundararajan, G., 83
Sutherland, J.W., 309
Szilagyi, A., 388

Takacs, J., 388
Takagi, J.-I., 107
Takahashi, S., 286
Takaya, M., 151
Takaya, Y., 286
Takeshita, H., 174
Tarantilis, P., 122
Teck, C.B., 261
Tong, K.K.S., 238
Tor, S.B., 165
Trana, K., 401
Tsuchiya, Y., 169
Tsukuda, A., 107

Uehara, K., 174, 178
Ule, B., 298
Ulsoy, A.G., 361
Urqueta, R., 68

Venkataswamy, S., 64

Wakaoka, S., 246
Wake, M., 40
Wang, W.Y., 230
Wang, X.D., 230
Wang, X.F., 388
Wang, Z.R., 374
Webster, J.A., 234

Yamane, Y., 246, 251
Ye, P., 369
Yeo, S.H., 191
Yui, A., 191

Zeren, M., 336
Zhang, J., 230
Zhong, Z.W., 191
Zhongqin, L., 261
Zhou, F., 293
Zhou, L., 140

ELSEVIER

Journal of Materials Processing Technology 127 (2002) 421–426

Journal of Materials Processing Technology

www.elsevier.com/locate/jmatprotec

Subject Index of Volume 127

Acoustic emission
Acoustic emission monitoring for the diamond machining of oxygen-free high-conductivity copper, 199
Actuated rest
Machining error compensation of extern cylindrical grinding using a thermally actuated rest, 280
Adhesion mechanism
Consideration of the adhesion mechanism of Ti alloys using a cemented carbide tool during the cutting process, 251
Adhesion strength
Preparation of diamond-coated tools and their cutting performance, 151
AISI D2 tool steel
High speed end milling of hardened AISI D2 tool steel (~58 HRC), 266
Alumina
The cooling effects of compressed cold air in cylindrical grinding with alumina and CBN wheels, 155
Aluminium recycling
Design optimisation of aluminium recycling processes using Taguchi technique, 96
Aluminum
Hydrogen gas generation in the wet cutting of aluminum and its alloys, 174
Analysis of variance
Experimental design and performance analysis of TiN-coated carbide tool in face milling stainless steel, 1
Anisotropy
Anisotropic characteristics of materials and basic selecting rules with different sheet metal forming processes, 374
ANOVA analysis
Design optimisation of aluminium recycling processes using Taguchi technique, 96
Artificial neural network
An optical fibre distributed sensor based on pattern recognition, 23
Modelling of microstructure and mechanical properties of steel using the artificial neural network, 115

Beam scanning
Developments in laser micro-machining techniques, 206
Binder-less PcBN tool
Cutting performance of a binder-less sintered cubic boron nitride tool in the high-speed milling of gray cast iron, 217
Bonding
Joining of silicon nitride ceramic composites with Y_2O_3–Al_2O_3–SiO_2 mixtures, 293
Bonding strength
Bonding strength of adhesives and surface roughness of joined parts, 178
Brittle material
A comparative study of natural stone modification by laser, 336

CAD/CAM packages
Automatic generation of part programs for milling sculptured surfaces, 31
CAM
Generation of fractal toolpaths for irregular shapes of surface finishing areas, 146
Carbide ceramics
Freeform fabrication of Ti_3SiC_2 powder-based structures. Part I: Integrated fabrication process, 343
Carbon steel
High-speed and high-accuracy plunge cutting for vertical walls, 246
Cast iron
High-speed and high-accuracy plunge cutting for vertical walls, 246
Cavity pressure
Cavity pressure measurements and process monitoring for magnesium die casting of a thin-wall hand-phone component to improve quality, 238
CBN
The cooling effects of compressed cold air in cylindrical grinding with alumina and CBN wheels, 155
cBN tool
High-speed and high-accuracy plunge cutting for vertical walls, 246
CCD camera
Inspection of reground drill point geometry using three silhouette images, 169
Cemented carbide tool
Consideration of the adhesion mechanism of Ti alloys using a cemented carbide tool during the cutting process, 251
Ceramic tool
High-speed and high-accuracy plunge cutting for vertical walls, 246
Ceramics
Strength recovery of ground ceramics via electric furnace heating, 107
Channel section
Simulation of a multi-stand roll-forming process for thick channel section, 382
Characterization
Freeform fabrication of Ti_3SiC_2 powder-based structures. Part II: Characterization and microstructure evaluation, 352
Chip formation
Finite element simulation of the orthogonal metal cutting process for qualitative understanding of the effects of crater wear on the chip formation process, 309
CNC milling
Automatic generation of part programs for milling sculptured surfaces, 31
CNC programming
Automatic generation of part programs for milling sculptured surfaces, 31
Coating
Comparison of the oxalate co-precipitation and the solid state reaction methods for the production of high temperature superconducting powders and coatings, 122
Production of shadow-mask-improved technology, 409

Elsevier Science B.V.
PII: S0924-0136(02)00776-8

Cold forging
2D and 3D finite element analysis of a three stage forging sequence, 48
Experimental and analytical evaluation for elastic deformation behaviors of cold forging tool, 73
Cold roll forming
Simulation of a multi-stand roll-forming process for thick channel section, 382
Component accuracy
Experimental and analytical evaluation for elastic deformation behaviors of cold forging tool, 73
Compressed cold air
The cooling effects of compressed cold air in cylindrical grinding with alumina and CBN wheels, 155
Computer aided analysis
Simulation of a multi-stand roll-forming process for thick channel section, 382
Construction of surface
Study on geometry modeling in the dynamic stamping simulation of a die, 261
Cooling effects
The cooling effects of compressed cold air in cylindrical grinding with alumina and CBN wheels, 155
Cracks
Strength recovery of ground ceramics via electric furnace heating, 107
Crater wear
Finite element simulation of the orthogonal metal cutting process for qualitative understanding of the effects of crater wear on the chip formation process, 309
Cross correlation coefficient
Non-contact 3D edge profile measurement for die and mould model surface, 286
Cup-shaped rubber abrasive disk
Autonomous tool adjustment in robotic grinding, 274
Cutting process
Consideration of the adhesion mechanism of Ti alloys using a cemented carbide tool during the cutting process, 251

Damage
2D and 3D finite element analysis of a three stage forging sequence, 48
3D edge profile
Non-contact 3D edge profile measurement for die and mould model surface, 286
Deep drawing
A note on deep drawing process: numerical simulation and experimental validation, 64
DEFORM
2D and 3D finite element analysis of a three stage forging sequence, 48
Deformation enhanced liquid phase sintering
Deformation enhanced liquid phase sintering (DELPS): a study on the use of partial adiabatic melting during powder consolidation, 159
Diamond
Ductile behaviour in single-point diamond-turning of single-crystal silicon, 187
Diamond bead
Assessment of the wear of diamond beads in the cutting of different rock types by the ridge regression, 392
Diamond machining
Acoustic emission monitoring for the diamond machining of oxygen-free high-conductivity copper, 199
Diamond wire cutting
Assessment of the wear of diamond beads in the cutting of different rock types by the ridge regression, 392
Diamond-coated tools
Preparation of diamond-coated tools and their cutting performance, 151
3D die and mould model shape
Non-contact 3D edge profile measurement for die and mould model surface, 286
Die
Study on geometry modeling in the dynamic stamping simulation of a die, 261
Die casting
Cavity pressure measurements and process monitoring for magnesium die casting of a thin-wall hand-phone component to improve quality, 238
Diffusion bonding
Consideration of the adhesion mechanism of Ti alloys using a cemented carbide tool during the cutting process, 251
3D model
Computer modelling and stress analysis of the lumbar spine, 40
3D printing
Freeform fabrication of Ti_3SiC_2 powder-based structures. Part I: Integrated fabrication process, 343
DSC
Comparison of the oxalate co-precipitation and the solid state reaction methods for the production of high temperature superconducting powders and coatings, 122
3D surface measurement
The characterisation of grinding wheels using 3D surface measurement techniques, 234
Dummy variables
Assessment of the wear of diamond beads in the cutting of different rock types by the ridge regression, 392
Dynamical simulation
Study on geometry modeling in the dynamic stamping simulation of a die, 261

Edge detection
Non-contact 3D edge profile measurement for die and mould model surface, 286
Elastic
Experimental and analytical evaluation for elastic deformation behaviors of cold forging tool, 73
Elastic deformation
Experimental and analytical evaluation for elastic deformation behaviors of cold forging tool, 73
Electrical discharge texturing
Surface alloying using PM composite electrode materials when electrical discharge texturing hardened AISI D2, 211
Electrocontact-discharge
Electrocontact-discharge forge welding of steel bars, 68
End mill
High-speed and high-accuracy plunge cutting for vertical walls, 246
Etching
Production of shadow-mask-improved technology, 409
Experimental design
Experimental design and performance analysis of TiN-coated carbide tool in face milling stainless steel, 1

FEM
Experimental and analytical evaluation for elastic deformation behaviors of cold forging tool, 73
Finite element analysis
2D and 3D finite element analysis of a three stage forging sequence, 48
Finite element model
Finite element simulation of the orthogonal metal cutting process for qualitative understanding of the effects of crater wear on the chip formation process, 309

Finite element modelling
Modelling of hard part machining, 222
Finite element stress analysis
Computer modelling and stress analysis of the lumbar spine, 40
Focused ion beam
Focused ion beam machining of silicon, 256
Forge welding
Electrocontact-discharge forge welding of steel bars, 68
Forming failure
Anisotropic characteristics of materials and basic selecting rules with different sheet metal forming processes, 374
Forming simulation
Finite element simulation of the tube hydroforming process—bending, preforming and hydroforming, 401
Fractal toolpaths
Generation of fractal toolpaths for irregular shapes of surface finishing areas, 146
Friction
Friction and wear behaviour of TiN/Au, TiN/MoS_2 and TiN/TiCN/a-C:H coatings, 182
Fully dense ceramic structure
Freeform fabrication of Ti_3SiC_2 powder-based structures. Part I: Integrated fabrication process, 343
Fully dense ceramics
Freeform fabrication of Ti_3SiC_2 powder-based structures. Part II: Characterization and microstructure evaluation, 352

Geometric modeling
Study on geometry modeling in the dynamic stamping simulation of a die, 261
Gouging
A tool path generation strategy for sculptured surfaces machining, 369
Gray cast iron
Cutting performance of a binder-less sintered cubic boron nitride tool in the high-speed milling of gray cast iron, 217
Grinding
Strength recovery of ground ceramics via electric furnace heating, 107
Ultra-high-speed thermal behavior of a rolling element upon using oil–air mist lubrication, 191
Machining error compensation of extern cylindrical grinding using a thermally actuated rest, 280
Grinding spindle
Ultra-high-speed thermal behavior of a rolling element upon using oil–air mist lubrication, 191
Grinding wheels
The characterisation of grinding wheels using 3D surface measurement techniques, 234

Hard part machining
Modelling of hard part machining, 222
Hardness and fracture toughness
Relations between fracture toughness, hardness and microstructure of vacuum heat-treated high-speed steel, 298
Heat-affected zone (HAZ)
Geometrical features and metallurgical characteristics of Nd:YAG laser drilled holes in thick IN718 and Ti–6Al–4V sheets, 83
Heating
Strength recovery of ground ceramics via electric furnace heating, 107
High speed end milling
High speed end milling of hardened AISI D2 tool steel (~58 HRC), 266
High-speed cutting
High-speed and high-accuracy plunge cutting for vertical walls, 246
High-speed drilling
Cutting behavior of a TiN-coated carbide drill with curved cutting edges during the high-speed machining of stainless steel, 8
High-speed milling
Cutting performance of a binder-less sintered cubic boron nitride tool in the high-speed milling of gray cast iron, 217
Surface integrity of hot work tool steel after high speed milling-experimental data and empirical models, 325
High-speed steel
Relations between fracture toughness, hardness and microstructure of vacuum heat-treated high-speed steel, 298
High-temperature bending test
Consideration of the adhesion mechanism of Ti alloys using a cemented carbide tool during the cutting process, 251
Hole quality
Geometrical features and metallurgical characteristics of Nd:YAG laser drilled holes in thick IN718 and Ti–6Al–4V sheets, 83
Hot work tool steel
Surface integrity of hot work tool steel after high speed milling-experimental data and empirical models, 325
Hydroforming
Finite element simulation of the tube hydroforming process—bending, preforming and hydroforming, 401
Hydrogen gas
Hydrogen gas generation in the wet cutting of aluminum and its alloys, 174

IGES
Automatic generation of part programs for milling sculptured surfaces, 31
Interface reaction
Joining of silicon nitride ceramic composites with Y_2O_3–Al_2O_3–SiO_2 mixtures, 293

Joined parts
Bonding strength of adhesives and surface roughness of joined parts, 178
Joint strength
Joining of silicon nitride ceramic composites with Y_2O_3–Al_2O_3–SiO_2 mixtures, 293

316L stainless steel
Micro-powder injection molding, 165
Laser
A comparative study of natural stone modification by laser, 336
Laser applications
Developments in laser micro-machining techniques, 206
Laser bending
Research on the thermo-physical process of laser bending, 388
Laser drilling
Geometrical features and metallurgical characteristics of Nd:YAG laser drilled holes in thick IN718 and Ti–6Al–4V sheets, 83
Laser micro-machining
Developments in laser micro-machining techniques, 206
Liquid-phase sintering
Self-propagating high-temperature synthesis and liquid-phase sintering of TiC/Fe composites, 131
Lumber spine
Computer modelling and stress analysis of the lumbar spine, 40

Machinability
Machinability of rapid tooling composite board, 242
Machining
A tool path generation strategy for sculptured surfaces machining, 369

Magnesium
Cavity pressure measurements and process monitoring for magnesium die casting of a thin-wall hand-phone component to improve quality, 238
Marble
Assessment of the wear of diamond beads in the cutting of different rock types by the ridge regression, 392
Measuring sensor path
Non-contact 3D edge profile measurement for die and mould model surface, 286
MEMS
Precise patterning of diamond films for MEMS application, 230
Micro-injection molding
Micro-powder injection molding, 165
Micromachining
Focused ion beam machining of silicon, 256
Micro-powder injection molding
Micro-powder injection molding, 165
Microstructure evaluation
Freeform fabrication of Ti_3SiC_2 powder-based structures. Part II: Characterization and microstructure evaluation, 352
Micro-system technology
Micro-powder injection molding, 165
Microwave plasma CVD
Preparation of diamond-coated tools and their cutting performance, 151
Modelling
Modelling of hard part machining, 222
Surface integrity of hot work tool steel after high speed milling-experimental data and empirical models, 325
Modelling of mechanical properties of steel
Modelling of microstructure and mechanical properties of steel using the artificial neural network, 115
Modelling of microstructure of steel
Modelling of microstructure and mechanical properties of steel using the artificial neural network, 115
Multicollinearity
Assessment of the wear of diamond beads in the cutting of different rock types by the ridge regression, 392
Multi-pass test
Friction and wear behaviour of TiN/Au, TiN/MoS_2 and TiN/TiCN/a-C:H coatings, 182

Nodular cast iron
Study of tool life, surface roughness and vibration in machining nodular cast iron with ceramic tool, 17
Non-contact measurement
Non-contact 3D edge profile measurement for die and mould model surface, 286
Non-isothermal shape rolling
Three-dimensional finite element analysis of non-isothermal shape rolling, 57
Number of grinding strokes
Autonomous tool adjustment in robotic grinding, 274

OFHC
Acoustic emission monitoring for the diamond machining of oxygen-free high-conductivity copper, 199
Oil–air mist lubrication system
Ultra-high-speed thermal behavior of a rolling element upon using oil–air mist lubrication, 191
Optical fibre sensor
An optical fibre distributed sensor based on pattern recognition, 23
Optical ring image sensor
Non-contact 3D edge profile measurement for die and mould model surface, 286
Optimization
Development of process control in sheet metal forming, 361
Orthogonal metal cutting
Finite element simulation of the orthogonal metal cutting process for qualitative understanding of the effects of crater wear on the chip formation process, 309
OTDR
An optical fibre distributed sensor based on pattern recognition, 23
Oxalate co-precipitation
Comparison of the oxalate co-precipitation and the solid state reaction methods for the production of high temperature superconducting powders and coatings, 122

Partial adiabatic melting
Deformation enhanced liquid phase sintering (DELPS): a study on the use of partial adiabatic melting during powder consolidation, 159
Pattern recognition
An optical fibre distributed sensor based on pattern recognition, 23
Patterning techniques
Precise patterning of diamond films for MEMS application, 230
Phase transformation deformation
Research on the thermo-physical process of laser bending, 388
Photosensitive liquid
Production of shadow-mask-improved technology, 409
Pin-on-disc wear test
Friction and wear behaviour of TiN/Au, TiN/MoS_2 and TiN/TiCN/a-C:H coatings, 182
Plastic deformation
Anisotropic characteristics of materials and basic selecting rules with different sheet metal forming processes, 374
Plunge cutting
High-speed and high-accuracy plunge cutting for vertical walls, 246
PM electrodes
Surface alloying using PM composite electrode materials when electrical discharge texturing hardened AISI D2, 211
Polishing
Robotic grinding and polishing for turbine-vane overhaul, 140
Polycrystalline diamond film
Precise patterning of diamond films for MEMS application, 230
Powder consolidation
Deformation enhanced liquid phase sintering (DELPS): a study on the use of partial adiabatic melting during powder consolidation, 159
Powder injection molding
Micro-powder injection molding, 165
Process control
Development of process control in sheet metal forming, 361
Process optimisation
Design optimisation of aluminium recycling processes using Taguchi technique, 96
Pulsed-arc
Electrocontact-discharge forge welding of steel bars, 68

Quantified microstructural parameters
Relations between fracture toughness, hardness and microstructure of vacuum heat-treated high-speed steel, 298

Rapid tooling
Machinability of rapid tooling composite board, 242
Recast layer
Geometrical features and metallurgical characteristics of Nd:YAG laser drilled holes in thick IN718 and Ti–6Al–4V sheets, 83
Reground drill point geometry
Inspection of reground drill point geometry using three silhouette images, 169

Residual stress
The cooling effects of compressed cold air in cylindrical grinding with alumina and CBN wheels, 155
Response surface method
Design optimisation of aluminium recycling processes using Taguchi technique, 96
Reverse engineering
Non-contact 3D edge profile measurement for die and mould model surface, 286
Ridge regression
Assessment of the wear of diamond beads in the cutting of different rock types by the ridge regression, 392
Rigid
Experimental and analytical evaluation for elastic deformation behaviors of cold forging tool, 73
Rigid thermo-viscoplastic approach
Three-dimensional finite element analysis of non-isothermal shape rolling, 57
Robotic grinding
Robotic grinding and polishing for turbine-vane overhaul, 140
Robotic grinding system
Autonomous tool adjustment in robotic grinding, 274
Roll texturing
Surface alloying using PM composite electrode materials when electrical discharge texturing hardened AISI D2, 211
Roundness
The cooling effects of compressed cold air in cylindrical grinding with alumina and CBN wheels, 155

Sculptured surfaces
Automatic generation of part programs for milling sculptured surfaces, 31
A tool path generation strategy for sculptured surfaces machining, 369
Self-propagating high-temperature synthesis
Self-propagating high-temperature synthesis and liquid-phase sintering of TiC/Fe composites, 131
Shadow-mask
Production of shadow-mask-improved technology, 409
Sheet metal
A note on deep drawing process: numerical simulation and experimental validation, 64
Sheet metal forming
Development of process control in sheet metal forming, 361
Anisotropic characteristics of materials and basic selecting rules with different sheet metal forming processes, 374
Signal-to-noise ratio
Experimental design and performance analysis of TiN-coated carbide tool in face milling stainless steel, 1
Design optimisation of aluminium recycling processes using Taguchi technique, 96
Silhouette images
Inspection of reground drill point geometry using three silhouette images, 169
Silicon
Ductile behaviour in single-point diamond-turning of single-crystal silicon, 187
Silicon nitride
Joining of silicon nitride ceramic composites with Y_2O_3–Al_2O_3–SiO_2 mixtures, 293
Simulation
A note on deep drawing process: numerical simulation and experimental validation, 64
Single crystal silicon
Focused ion beam machining of silicon, 256
Single-crystal
Ductile behaviour in single-point diamond-turning of single-crystal silicon, 187
Solid freeform fabrication
Freeform fabrication of Ti_3SiC_2 powder-based structures. Part I: Integrated fabrication process, 343
Freeform fabrication of Ti_3SiC_2 powder-based structures. Part II: Characterization and microstructure evaluation, 352
Spatter
Geometrical features and metallurgical characteristics of Nd:YAG laser drilled holes in thick IN718 and Ti–6Al–4V sheets, 83
Spline finite strip method
Simulation of a multi-stand roll-forming process for thick channel section, 382
Splitting
Anisotropic characteristics of materials and basic selecting rules with different sheet metal forming processes, 374
SQUID
Comparison of the oxalate co-precipitation and the solid state reaction methods for the production of high temperature superconducting powders and coatings, 122
Stainless steel
Cutting behavior of a TiN-coated carbide drill with curved cutting edges during the high-speed machining of stainless steel, 8
Statistical modelling
Assessment of the wear of diamond beads in the cutting of different rock types by the ridge regression, 392
Sticking and sliding friction
Finite element simulation of the orthogonal metal cutting process for qualitative understanding of the effects of crater wear on the chip formation process, 309
Stone cutting
A comparative study of natural stone modification by laser, 336
Strain
A note on deep drawing process: numerical simulation and experimental validation, 64
Strain gauge
Experimental and analytical evaluation for elastic deformation behaviors of cold forging tool, 73
Strength recovery
Strength recovery of ground ceramics via electric furnace heating, 107
Surface alloying/modification
Surface alloying using PM composite electrode materials when electrical discharge texturing hardened AISI D2, 211
Surface finishing
Generation of fractal toolpaths for irregular shapes of surface finishing areas, 146
Surface roughness
Study of tool life, surface roughness and vibration in machining nodular cast iron with ceramic tool, 17
The cooling effects of compressed cold air in cylindrical grinding with alumina and CBN wheels, 155
Bonding strength of adhesives and surface roughness of joined parts, 178
High speed end milling of hardened AISI D2 tool steel (~58 HRC), 266
Autonomous tool adjustment in robotic grinding, 274

Taguchi method
Experimental design and performance analysis of TiN-coated carbide tool in face milling stainless steel, 1
Design optimisation of aluminium recycling processes using Taguchi technique, 96
Taper
Geometrical features and metallurgical characteristics of Nd:YAG laser drilled holes in thick IN718 and Ti–6Al–4V sheets, 83

Thermal deformation
Research on the thermo-physical process of laser bending, 388
Thermal strain cracks
Cutting performance of a binder-less sintered cubic boron nitride tool in the high-speed milling of gray cast iron, 217
Thermomechanical coupling
Finite element simulation of the orthogonal metal cutting process for qualitative understanding of the effects of crater wear on the chip formation process, 309
Thermomechanical processing of steel
Modelling of microstructure and mechanical properties of steel using the artificial neural network, 115
Thermo-physical process
Research on the thermo-physical process of laser bending, 388
Thinning
Anisotropic characteristics of materials and basic selecting rules with different sheet metal forming processes, 374
Thin-wall hand-phone component
Cavity pressure measurements and process monitoring for magnesium die casting of a thin-wall hand-phone component to improve quality, 238
Three-dimensional finite element analysis
Three-dimensional finite element analysis of non-isothermal shape rolling, 57
Ti alloys
Consideration of the adhesion mechanism of Ti alloys using a cemented carbide tool during the cutting process, 251
TiC/Fe composites
Self-propagating high-temperature synthesis and liquid-phase sintering of TiC/Fe composites, 131
TiN/TiCN/a-C:H
Friction and wear behaviour of TiN/Au, TiN/MoS_2 and TiN/TiCN/a-C:H coatings, 182
TiN-coated carbide drill
Cutting behavior of a TiN-coated carbide drill with curved cutting edges during the high-speed machining of stainless steel, 8
Tool angle
Autonomous tool adjustment in robotic grinding, 274
Tool life
Study of tool life, surface roughness and vibration in machining nodular cast iron with ceramic tool, 17
High speed end milling of hardened AISI D2 tool steel (~58 HRC), 266
Tool path generation
A tool path generation strategy for sculptured surfaces machining, 369
Tube bending
Finite element simulation of the tube hydroforming process—bending, preforming and hydroforming, 401
Turbine vane
Robotic grinding and polishing for turbine-vane overhaul, 140

Vacuum heat treatment
Relations between fracture toughness, hardness and microstructure of vacuum heat-treated high-speed steel, 298
Vibration
Study of tool life, surface roughness and vibration in machining nodular cast iron with ceramic tool, 17

Wearing
Assessment of the wear of diamond beads in the cutting of different rock types by the ridge regression, 392
Wet cutting
Hydrogen gas generation in the wet cutting of aluminum and its alloys, 174
Wheel speed
Ultra-high-speed thermal behavior of a rolling element upon using oil–air mist lubrication, 191
Wheel surface topography
The characterisation of grinding wheels using 3D surface measurement techniques, 234
Workpiece
Machining error compensation of extern cylindrical grinding using a thermally actuated rest, 280
Workpiece break-out
Machinability of rapid tooling composite board, 242
Workpiece surface integrity
Surface integrity of hot work tool steel after high speed milling-experimental data and empirical models, 325
Wrinkling
Anisotropic characteristics of materials and basic selecting rules with different sheet metal forming processes, 374

XRD
Comparison of the oxalate co-precipitation and the solid state reaction methods for the production of high temperature superconducting powders and coatings, 122

YBCO
Comparison of the oxalate co-precipitation and the solid state reaction methods for the production of high temperature superconducting powders and coatings, 122
Y_2O_3–Al_2O_3–SiO_2
Joining of silicon nitride ceramic composites with Y_2O_3–Al_2O_3–SiO_2 mixtures, 293